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Mineral Industry Surveys

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MOLYBDENUM IN JUNE 2004

Domestic production of molybdenum in concentrate in June 2004 was about 8% less than that of the previous month and was about 72% more than that of June 2003, according to the U.S. Geological Survey. Year-to-date production of molybdenum in concentrate from January through June was 19% more than during the same period in 2003. Producer stocks of molybdenum in concentrate, oxide, and other product forms were about 4,730 metric tons (t) at the beginning of 2004, and 4,572 t at the end of June.

According to Ryan's Notes (2004c), the June monthly average prices for U.S. ferromolybdenum ranged from $17.111 to $18.056 per pound of molybdenum content, compared with $14.013 to $14.750 in May. European ferromolybdenum monthly averages ranged from $43.778 to $45.778 per kilogram of molybdenum content in June as compared with $32.375 to $33.438 in May. In June, worldwide molybdenum oxide prices ranged from $15.456 to $15.961 per pound versus $13.300 to $13.731in May.

Chinese ferromolybdenum traders were concerned by the surge in price of Western ferromolybdenum and its effect on the Chinese ferromolybdenum market (Platts Metals Week, 2004). Chinese ferromolybdenum ranged from $31 to $33 per kilogram in mid-June, while European ferromolybdenum rose to a range of $47 to $52 per kilogram. A United States-based trader agreed that a two-tiered market was in place and a major reason for it was that the European Union (EU) enlarged in May by 10 new countries. This reportedly had the effect of reducing Chinese ferromolybdenum consumption by the new Eastern European members owing to antidumping duties in place on Chinese ferromolybdenum imports into the EU. High prices in Europe could lead to reduced ferromolybdenum consumption in Europe. Some European buyers reportedly were switching to molybdenum briquettes or opting for low-molybdenum or molybdenum-free steel grades to stay out of the market.

European steel mills planned to ask for an interim review of the 22.5% anti-dumping duty on Chinese ferromolybdenum but were unlikely to file a formal request with the European Commission (EC) until September at the earliest, according to the director of Eurofer, the association of European steel producers (Ryan's Notes, 2004b). The duty was imposed in February 2002, in addition to the existing 2.7% duty, and an interim review can be requested any time after the duty has been in place for 1 year. Euroalliages, the ferroalloys association that petitioned the EC for relief from Chinese dumping, said it would make every effort to retain the duty to protect the viability of EU ferromolybdenum producers.

Amerigo Resources Ltd. (Amerigo) received approval to construct a processing plant to extract molybdenum from a copper concentrate produced at Minera Valle Central (MVC) near Santiago, Chile (Ryan's Notes, 2004a). MVC recovers copper from tailings discarded from the El Teniente Mine, producing an average of 140 metric tons per day of copper concentrate grading 0.894% molybdenum. Expected yearly molybdenum production would be about 320 t (700,000 pounds) contained in concentrate. Amerigo estimated operating costs to be about $2 per pound.

Included in this Mineral Industry Surveys are U.S. production and shipments of molybdenum concentrates and materials, plus U.S. consumption, by end use, and stocks of molybdenum material in May and June 2004; also included are trade data for April and May 2004.

References Cited

Platts Metals Week, 2004, Chinese concerned over surge: Platts Metals Week, v. 75, no. 24, June 14, p. 1.
Ryan's Notes, 2004a, Ferroalloy notes: Ryan's Notes, v. 10, no. 26, June 28, p. 4.
Ryan's Notes, 2004b, Moly trending down, for now: Ryan's Notes, v. 10, no. 25, June 21, p. 3.
Ryan's Notes, 2004c, [untitled]: Ryan's Notes, v. 10, no. 27, July 5, p. 4.

TABLE 1
U.S. SALIENT MOLYBDENUM CONCENTRATE STATISTICS[1]

(Metric tons, contained molybdenum)

	2003	2004		
	January-December[p]	May	June	Year to date
Production	34,400	3,610	3,320	19,000
Shipments:[2]				
Domestic	26,800	2,660	2,700	14,600
Export	7,750	863	757	4,790

[p]Preliminary.
[1]Data are rounded to no more than three significant digits.
[2]As reported by producers.

TABLE 2
U.S. REPORTED PRODUCTION AND SHIPMENTS OF MOLYBDENUM PRODUCTS[1]

(Metric tons, contained molybdenum)

	2003	2004		
	January-December[p]	May	June	Year to date
Gross production	41,400	4,880	5,350	30,700
Internal consumption[2]	29,600	2,930	3,570	19,400
Gross shipments	30,100	2,900	3,330	18,400

[p]Preliminary.
[1]Data are rounded to no more than three significant digits.
[2]Includes molybdic oxides, metal powder, ammonium molybdate, sodium molybdate, and other.

TABLE 3

U.S. REPORTED CONSUMPTION, BY END USES, AND CONSUMER STOCKS OF MOLYBDENUM MATERIALS[1]

(Kilograms, contained molybdenum)

End use	Molybdic oxides	Ferro molyb-denum[2]	Ammonium and sodium molybdate	Molyb-denum scrap	Other	Total
2004, May:						
Steel:						
Carbon	16,600 r	W	--	--	W	16,600 r
High-strength low-alloy	39,800 r	8,930 r	--	--	11,300	60,000 r
Stainless and heat-resisting	208,000	64,000	--	W	6,780	279,000
Full alloy	117,000 r	207,000 r	--	--	1,510	325,000 r
Tool	54,100	W	--	--	--	54,100
Total	435,000 r	280,000 r	--	W	19,600	735,000 r
Cast irons (gray, malleable, and ductile iron)	W	8,900	--	--	763	9,660
Superalloys	65,800	W	--	(3)	105,000	170,000
Alloys: (other than steels, cast irons, and superalloys)						
Welding materials (structural and hard-facing)	--	W	--	--	6	6
Other alloys	349	816	--	--	20	1,180
Mill products made from metal powder[4]	--	--	--	--	131,000 r	131,000 r
Cemented carbides and related products[5]	--	--	--	--	W	W
Chemical and ceramic uses:						
Pigments	--	--	W	--	--	W
Catalysts	77,300	--	W	--	W	77,300
Other chemicals	--	--	--	--	887 r	887 r
Miscellaneous and unspecified uses:						
Lubricants	--	--	--	--	17,400	17,400
Other	1,090	30,500	74,200	16	16,800	123,000
Grand total	580,000 r	320,000 r	74,200	16	291,000 r	1,260,000 r
Stocks, May 31, 2004	420,000	182,000	5,350	12,900	845,000 r	1,470,000
2004, June:						
Steel:						
Carbon	26,900	W	--	--	W	26,900
High-strength low-alloy	28,700	8,540	--	--	11,300	48,600
Stainless and heat-resisting	211,000	65,600	--	W	6,780	283,000
Full alloy	121,000	206,000	--	--	1,510	328,000
Tool	54,400	W	--	--	--	54,400
Total	442,000	280,000	--	W	19,600	741,000
Cast irons (gray, malleable, and ductile iron)	W	8,840	--	--	763	9,600
Superalloys	61,000	W	--	(3)	123,000	184,000
Alloys: (other than steels, cast irons, and superalloys)						
Welding materials (structural and hard-facing)	--	W	--	--	6	6
Other alloys	330	498	--	--	20	847
Mill products made from metal powder[4]	--	--	--	--	104,000	104,000
Cemented carbides and related products[5]	--	--	--	--	W	W
Chemical and ceramic uses:						
Pigments	--	--	W	--	--	W
Catalysts	77,300	--	W	--	W	77,300
Other chemicals	--	--	--	--	1,440	1,440
Miscellaneous and unspecified uses:						
Lubricants	--	--	--	--	12,700	12,700
Other	1,090	36,200	75,300	16	16,800	129,000
Grand total	582,000	325,000	75,300	16	278,000	1,260,000
Stocks, June 30, 2004	442,000	170,000	5,290	21,500	846,000	1,490,000

rRevised. W Withheld to avoid disclosing company proprietary data; included in "Other" of the "Miscellaneous and unspecified uses" category. -- Zero.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Includes calcium molybdate.

[3]Included in "Other" of the "Superalloys" category.

[4]Includes ingot, wire, rod, and sheet.

[5]Includes construction, mining, oil and gas, metalworking machinery.

TABLE 4
U.S. EXPORTS OF MOLYBDENUM ORES AND CONCENTRATES
(including roasted concentrate), BY COUNTRY[1]

(Kilograms, contained molybdenum)

Country	2003 January-December	2004 April	2004 May	2004 Year to date
Australia	102,000	5,710	1,770	11,000
Austria	--	33,600	145,000	269,000
Belgium	3,190,000	216,000	1,290,000	2,280,000
Brazil	42,600	6,670	295	11,300
Canada	910,000	158,000	231,000	459,000
Chile	368,000	97,100	--	926,000
China	82,600	--	--	--
Costa Rica	22,500	--	--	13,800
India	44,300	--	--	--
Italy	20,300	--	--	--
Japan	2,000,000	286,000	120,000	735,000
Korea, Republic of	61,400	6,840	25,500	50,600
Mexico	3,730,000	82,600	252,000	523,000
Netherlands	10,900,000	656,000	1,080,000	2,950,000
Sweden	25,700	--	--	--
Taiwan	9,590	455	--	8,830
United Kingdom	7,880,000	319,000	925,000	3,090,000
Other	137,000	209,000	509,000	806,000
Total	29,500,000	2,080,000	4,580,000	12,100,000

-- Zero.
[1]Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.

TABLE 5
U.S. EXPORTS OF FERROMOLYBDENUM, BY COUNTRY[1]

(Kilograms, contained molybdenum)

Country	2003 January-December	2004 April	2004 May	2004 Year to date
Australia	873	--	--	818
Canada	547,000	147,000	119,000	427,000
Denmark	241	--	--	--
Japan	61	--	--	--
Mexico	43,100	--	1,960	14,100
Netherlands	25,500	--	--	--
United Kingdom	--	--	491	491
Total	617,000	147,000	121,000	443,000

-- Zero.
[1]Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF MOLYBDENUM PRODUCTS[1]

(Kilograms, unless otherwise specified)

Material	January-December 2003			May 2004		
	Gross weight	Contained molybdenum	Value (c.i.f.)[2] (thousands)	Gross weight	Contained molybdenum	Value (c.i.f.)[2] (thousands)
Ore and concentrates roasted	6,310,000	3,960,000	$41,900	396,000	244,000	$6,580
Ore and concentrates other	2,870,000	1,230,000	9,580	387,000	193,000	3,660
Molybdenum chemicals:						
Oxides and hydroxides	1,300,000	NA	9,780	82,700	NA	1,330
Molydates of ammonium	1,620,000	937,000	11,600	151,000	103,000	1,290
Molydates (all others)	324,000	145,000	1,200	21,100	21	10
Molybdenum orange	987,000	NA	4,440	76,200	NA	396
Ferromolybdenum	5,740,000	3,690,000	38,200	646,000	403,000	9,190
Molybdenum powders	57,000	43,100	2,000	3,950	3,770	222
Molybdenum unwrought	139,000	136,000	1,700	--	--	--
Molybdenum waste and scrap	425,000	388,000	5,000	35,400	34,900	538
Molybdenum wire	10,600	NA	776	2,330	NA	221
Molybdenum other	79,900	NA	6,420	5,220	NA	683
Total	19,900,000	10,500,000	133,000	1,810,000	982,000	24,100

NA Not available. -- Zero.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Cost, insurance, and freight at U.S. ports.

Source: U.S. Census Bureau.